WEAR CONTAMINATION FLUID CONDITION

NORMAL NORMAL NORMAL

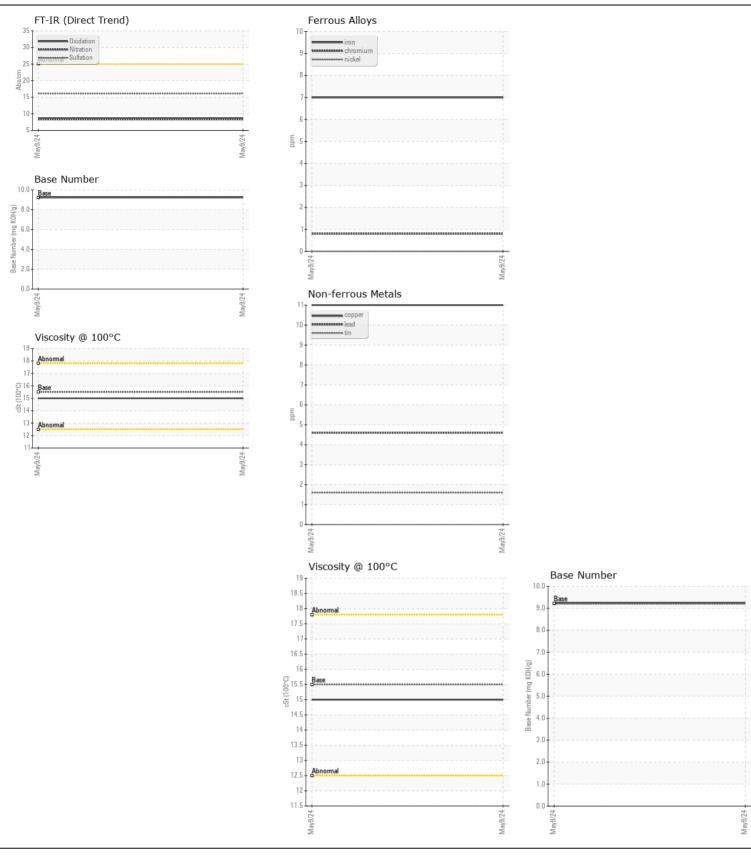
Machine Id

[] NOT GIVEN MW0068728 MW 0068728

Starboard Main Engine

CHEVRON DELO 710 LE (190 GAL)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0068728		
Sample Date		Client Info		09 May 2024		
Machine Age	hrs	Client Info		34019		
	hrs	Client Info				
•	hrs					
		Client Info				
Sample Status				NORMAL		
Iron	mag	ASTM D5185m	>75	7		
Aluminum				1		
Lead	ppm			5		
Copper	ppm			11		
Tin	ppm	ASTM D5185m	>14	2		
Vanadium	ppm	ASTM D5185m		0		
White Metal	scalar	*Visual	NONE	NONE		
Yellow Metal	scalar	*Visual	NONE	NONE		
O						
	ppm					
			>0.1			
	0/					
			> 20			
• •						
	scalar					
Sodium	ppm		>75	<1		
Boron	ppm	ASTM D5185m		58		
	ppm	ASTM D5185m		0		
-	ppm					
	ppm					
_						
	ppm					
			10			
			10			
Sulfur Oxidation			. 05			
	Abs/.1mm	*ASTM D7414	>25	8.7		
Base Number (BN)		ASTM D2896		9.24		
	Sample Number Sample Date Machine Age Oil Age Filter Age Oil Changed Filter Changed Sample Status Iron Chromium Nickel Titanium Silver Aluminum Lead Copper Tin Vanadium White Metal Yellow Metal Silicon Potassium Fuel Water Glycol Soot % Nitration Sulfation Silt Debris Sand/Dirt Appearance Odor Emulsified Water Sodium Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	Sample Number Sample Date Machine Age hrs Oil Age hrs Filter Age hrs Oil Changed Filter Changed Sample Status Iron ppm Chromium ppm Nickel ppm Titanium ppm Silver ppm Aluminum ppm Lead ppm Copper ppm Tin ppm Vanadium ppm White Metal scalar Yellow Metal scalar Yellow Metal scalar Silicon ppm Potassium ppm Fuel Water Glycol Soot % % Nitration Abs/cm Sulfation Abs/.1mm Silt scalar Sand/Dirt scalar Appearance scalar Codor scalar Emulsified Water scalar Sodium ppm Boron ppm Boron ppm Manganese ppm Magnesium ppm Calcium ppm Phosphorus ppm Zinc ppm Sulfur ppm Sulfur ppm Sulfur ppm	Sample Number Sample Date Machine Age Oil Age hrs Client Info Sample Status Iron ppm ASTM D5185m Chromium ppm ASTM D5185m Nickel ppm ASTM D5185m Titanium ppm ASTM D5185m Aluminum ppm ASTM D5185m Copper ppm ASTM D5185m Copper ppm ASTM D5185m Vanadium ppm ASTM D5185m Voisual Silicon ppm ASTM D5185m Potassium ppm ASTM D5185m Fuel WC Method Water WC Method Water WC Method Soot % % ASTM D5185m Fuel WC Method Soot % Nitration Abs/.1mm *ASTM D7624 Sulfation Abs/.1mm ASTM D5185m Appearance Scalar *Visual Scalar *Visual Scalar *Visual Scalar *Visual Scalar *ASTM D5185m Boron ppm ASTM D5185m Barium ppm ASTM D5185m ASTM D5185m Manganese ppm ASTM D5185m Manganese ppm ASTM D5185m Phosphorus Phosphorus Ppm ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Phosphorus Ppm ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Phosphorus Ppm ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Phosphorus Ppm ASTM D5185m	Sample Number Sample Date Client Info Sample Date Client Info Machine Age hrs Client Info Oil Age hrs Client Info Filter Age hrs Client Info Oil Changed Client Info Filter Changed Client Info Sample Status Iron ppm ASTM D5185m >75 Chromium ppm ASTM D5185m >2 Titanium ppm ASTM D5185m >2 Titanium ppm ASTM D5185m >2 Aluminum ppm ASTM D5185m >15 Lead ppm ASTM D5185m >15 Lead ppm ASTM D5185m >18 Copper ppm ASTM D5185m >18 Copper ppm ASTM D5185m >14 Vanadium ppm ASTM D5185m >14 Vanadium ppm ASTM D5185m >14 Vanadium ppm ASTM D5185m >10 Vanadium ppm ASTM D5185m >20 Fuel WC Method >4.0 Water WC Method Soot % *ASTM D5185m >20 Fuel WC Method Soot % *ASTM D7844 Nitration Abs/lmm *ASTM D7844 Nitration Abs/lmm *ASTM D7415 >30 Silt scalar *Visual NONE Sand/Dirt scalar *Visual NONE Sand/Dir	Sample Number Sample Date Client Info MW0068728 Sample Date Client Info 09 May 2024 Machine Age hrs Client Info 34019 Gil Age hrs Client Info 34019 Filter Age hrs Client Info Not Changd Filter Changed Client Info Not Changd Sample Status Client Info Not Changd Iron ppm ASTM D5185m >75 7 Chromium ppm ASTM D5185m >8 <1	Sample Number Client Info Sample Date Client Info 09 May 2024







Certificate L2367

Laboratory Sample No.

Lab Number : 06176242 Unique Number : 11022295 Test Package : MAR 2

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : MW0068728 Received : 10 May 2024 **Tested** : 14 May 2024

Diagnosed

: 14 May 2024 - Sean Felton

INGRAM BARGE 900 S 3RD ST PADUCAH, KY US 42003

Contact: ANTHONY VAN CURA

anthony.vancura@ingrambarge.com T: (270)415-4467

To discuss this sample report, contact Customer Service at 1-800-237-1369. * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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